

What is claimed is:

1. A ceramic material coating method of forming a coating film on a base by applying a ceramic material including a complex oxide to the base by spin coating, the  
5 method comprising:

a first rotational step of rotating the base at a predetermined rotational speed;

a second rotational step of rotating the base at a rotational speed lower than the rotational speed in the first rotational step; and

a third rotational step of rotating the base at a rotational speed higher than the  
10 rotational speed in the second rotational step.

2. The ceramic material coating method as defined in claim 1,

wherein the rotational speed in the third rotational step is higher than the rotational speed in the first rotational step.

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3. The ceramic material coating method as defined in claim 1, further comprising:

a step of drying the coating film after forming the coating film by the spin coating.

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4. The ceramic material coating method as defined in claim 3,

wherein the step of drying the coating film is performed by blowing gas onto the coating film.

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5. The ceramic material coating method as defined in claim 1,

wherein the ceramic material includes at least one of a sol-gel raw material and an MOD raw material, the sol-gel raw material including at least one of a hydrolysate

and a polycondensate of the complex oxide, the MOD raw material including constituent elements of the complex oxide in an organic solvent.

6. The ceramic material coating method as defined in claim 1,

5        wherein the base to which the ceramic material is applied includes an electrode layer made of a platinum group element on a surface of the base.

7. A ceramic film obtained by the ceramic material coating method as defined by claim 1.

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8. A ceramic film obtained by the ceramic material coating method as defined by claim 2.

9. A ceramic film obtained by the ceramic material coating method as defined by claim 3.

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10. A ceramic film obtained by the ceramic material coating method as defined by claim 4.

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